

JUN 14 2008

Mr. Charles Maguire, Manager
Water Quality Assessment Section (MC-150)
Texas Commission on Environmental Quality (TCEQ)
P.O. Box 13087
Austin, TX 78711-3087

Dear Mr. Maguire:

The Environmental Protection Agency (EPA) has completed its technical review of site-specific copper criteria, which were submitted by letter dated November 14, 2007. The site-specific criteria apply to a portion of Horsepen Creek, a perennial, unclassified stream. According to §307.10 Appendix D of the 2000 *Texas Surface Water Quality Standards* (TX WQS), Horsepen Creek is designated with a limited aquatic life use in the portion where these site-specific criteria apply. EPA guidance allows states to develop site-specific criteria for waters for which default water quality criteria may not be appropriate.

Under Texas Pollutant Discharge Elimination System (TPDES) Permit No. 12726, the Harris County Municipal Utility District (MUD) No. 155 is authorized to treat and discharge wastewater from the Harris County MUD No. 155 Wastewater Treatment Facility to Horsepen Creek; thence to Langham Creek; thence to Bear Creek; thence to South Mayde Creek; thence to Buffalo Bayou Above Tidal in Segment 1014 of the San Jacinto River Basin. Due to the water quality characteristics of the facility's discharge from outfall 001, a water effects ratio (WER) study was performed (using laboratory water and simulated downstream water consisting of 96% effluent from outfall 001 and 4% receiving stream water) to determine if site-specific water quality criteria for copper would be more appropriate than the state-wide copper criteria.

Our review of the WER study indicates that the statewide water quality criteria for copper may be adjusted to account for site-specific physical and chemical interactions which mitigate the toxicity of copper to aquatic organisms. The methodology used to determine the site-specific criteria is consistent with EPA's WER guidance for metals and with the previously-approved WER provision in §307.6(c)(9) of the TX WQS, adopted July 26, 2000. From the study, a WER of 16.27 and a WER of 4.65 for dissolved copper were derived from two toxicity tests conducted on *Ceriodaphnia dubia*. Because there was a large variation between the WERs determined from the first and the second tests, the more conservative WER value of 4.65 was selected, rather than using a geometric mean of the two WER values.

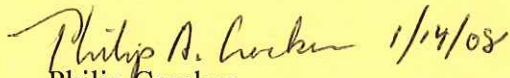
We also noted that the method detection limit (MDL) used during the two toxicity tests to measure TSS in the laboratory water was 10 mg/L. Appendix A of EPA's Streamlined WER Guidance (Page 7, item D2) states, "Do not use laboratory water with DOC, TOC, or TSS > 5 mg/L". Using a MDL of 10 mg/L makes it difficult to determine whether the requirement in the

streamlined guidance has been met. We recommend that the method used to measure TSS in the laboratory water for future WER studies completed in Texas provide a MDL appropriate to determine whether the < 5mg/L requirement for TSS in the Laboratory water has been met.

Based on our technical review of the study performed, the 2000 TX WQS criteria for copper and the resulting WER of 4.65, EPA has determined that a site-specific freshwater acute water quality criterion of 38.73 µg/L and a chronic water quality criterion of 27.80 µg/L are approvable. However, in order for EPA to take a formal approval action under §303(c) of the Clean Water Act, fulfillment of the public participation requirements found at 40 CFR Part 25 for this site-specific water quality standards revision is necessary. In order to fulfill these requirements and to complete TCEQ's water quality standards submission, we request that TCEQ submit to EPA a copy of the public notice for this site-specific water quality standards revision, along with any comments received during the public comment period (or documentation that no comments were received). The public participation process may be completed through the permit application process, as noted in §307.6(c)(9) of the TX WQS.

If you should have any questions, please call me at (214) 665-6644 or have your staff contact Nelly Smith at (214) 665-7109.

Sincerely yours,

 1/14/08
Philip Crocker
Chief
Watershed Management Section (6WQ-EW)

cc: Jason Godeaux, TCEQ - Water Quality Assessment Section (MC-150)
Firoj Vahora, TCEQ - Wastewater Permitting Section (MC-148)

bcc: Kay Schwab (6WQ-PO)

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